This document summarizes information received at a meeting on the Framework for an Agreement between the Michigan Department of Environmental Quality and The Dow Chemical Company held April 14, 2005. The DEQ will compile and respond to the questions after all meetings have been completed so that one document can group and effectively respond to the issues raised. The notes and responses to questions from all meetings will be posted in the DEQ website as the documents become available.

COMPILED NOTES SUMMARY Bay City Dioxin Community Focus Group Meeting Department of Environmental Quality (DEQ)/The Dow Chemical Company (Dow) Double Tree Hotel, Bay City

April 14, 2005

Chuck Nelson, Facilitator

Invited participants at table. Approximately 50 public observers seated in audience. Minutes taken to capture comments, but comments not attributed to participants.

Facilitator: Questions can be posed on the cards distributed around the table. Those at the table have the first opportunity to speak. The meeting will be conducted with civility, while recognizing that some are passionate about the issue.

DEQ Director Steve Chester: This is the final of four meetings with stakeholders. The purpose of this meeting is to solicit ideas on how DEQ and Dow can move forward on effective public outreach. The first three meetings were very productive; helpful input was received.

Chester: When discussing the dioxin issue, three areas are included: the City of Midland; the Tittabawassee River and the first five miles of the Saginaw River; and the lower Saginaw River and Saginaw Bay.

Dow Vice President and Director, Michigan Dioxin Initiative, Susan Carrington: We need your help. The community, Dow, and DEQ face a complex situation. Competing interests need to be addressed. We want to keep the public informed and ensure community involvement before decisions are made.

Chester made a slide presentation on the DEQ/Dow Framework for an Agreement.

Questions and Comments

C: I am concerned about the human studies and the long-term genetic overlay of the dioxin issue. The acne condition of the President of Ukraine is a case in point.

Chester: There have been numerous dioxin studies, and they continue. The cleanup efforts are preventative. Cleanup standards will evolve over time with new studies and results.

Q: What is the half-life of dioxin?

DEQ Deputy Director Jim Sygo: Seven to ten years.

Q: It seems too early in the process to determine that. What are the long-term effects?

Chester: Vietnam veterans have been studied for 25 years. There have been other studies in Europe (e.g., Seveso, Italy).

Carrington: The Italian incident has been studied since 1976. Dow workers have been studied 40 years. NIOSH (the National Institute of Occupational Safety and Health) has studied dioxin broadly. There have been a lot of longitudinal studies.

Chester: The DEQ, Dow, NIOSH, and Agency for Toxic Substances and Disease Registry (ATSDR) have websites that reference these studies.

C: Dr. Birnbaum addressed this last night. She has done pioneering work on dioxin. The U.S. Environmental Protection Agency (U.S. EPA) dioxin reassessment has been going on longer than 12 years. It is one of the most studied contaminants. It has second generation impacts. There are a host of medical problems associated with dioxin, even at low levels. It causes far more than chloracne. The impacts of Agent Orange are evident. The State (Department of Community Health and DEQ) has a position on dioxin. The State recognizes that it is systemic while the partner of the State does not. Dow says that the findings are inconclusive, flying in the face of the evidence building over the last 15 years.

Chester: We have heard that we need to provide better information to the public. There will undoubtedly be disagreements between Dow and DEQ. We need to identify these disagreements so the public can make their best judgments.

Carrington: We are committed to going forward and will work with DEQ on our divergent views regarding health impacts.

C: It is important to list studies and resources on the DEQ website. The information should be summarized and in plain English. People do not have time to read all the materials. The message should be clear with regard to the State's position. List what the hazards, risks, and action levels are on the DEQ web site.

Q: How were the 1,000 parts per trillion (ppt) and 90 ppt numbers selected? Would it not be more appropriate to use 90 ppt?

Chester: 90 ppt is the final remedy standard for residential cleanup. It is common to have interim actions taken while developing the final remedy. There can be other standards for interim action. For the first priority clean-up areas, the ATSDR level of 1,000 ppt level was chosen. Other factors could be looked at in actions to address Priority 2 areas; for example, areas which were not inundated, but had some flood impact. Other actions, such as signage, address public access and use issues.

Q: What will be the impact of disturbing the soil in the Saginaw River dredging project? The soil will go downriver and could affect the drinking water in Saginaw Bay.

Sygo: We are looking at what sampling will be needed in the longer term (e.g., Saginaw Bay beaches). We have not seen dioxin in the water supply.

C: The U.S. EPA criticized the dredging project for transporting sediments downstream.

Q: Will the agreement include specific actions for the Saginaw River and Bay?

Chester: The Framework contemplates a long-term comprehensive agreement. The lower Saginaw River and Bay present the greatest challenge. We know the least about those areas. However, our goal is a comprehensive resolution for those areas.

C: The lower Saginaw River is not included in Section II of the Framework (Ongoing and Future Investigation and Remedial Activities). There have been reports of deformities in the birds and fish in Saginaw Bay. If everything is washing downstream, the lower Saginaw River should be included.

Chester: There was no intent to exclude the lower River and Bay.

C: If there is no accountability, things fall through the cracks.

Chester: The Operating License clearly includes the lower Saginaw River and Bay. They will not be lost in the process.

Q: Are they included in the Framework?

Chester: The Framework has already been signed, but these areas will not be lost in the process.

C: It will be addressed at a later date under the Trust Funds process.

Q: Are sediments to go to the Frankenlust disposal site?

Chester: (Asked Sygo) Can Dow consider a [Confined Disposal Facility] CDF-like facility as long as they comply with applicable law? There is no reference in the Framework to CDF.

Sygo: Yes, the Framework recognizes remedies that might involve dredging as long as they meet State and federal laws. The Framework did anticipate this part of the Trust Funds ongoing evaluations. We do not anticipate that the Bay would be dredged.

C: There are three sections in the Framework: immediate priority, ongoing, and other. Saginaw Bay is excluded from future actions. I do not understand why Saginaw Bay, our water source, is not included under "Future Investigation and Remedial Activities."

Sygo: It was an oversight. The concerns about dioxin getting into the water supply were discussed. We looked at it from a long-term perspective. If long-term monitoring shows that it is indeed getting into the water supply, the process would be reopened [under the more comprehensive agreement that will follow the Framework].

Q: What is the dollar amount in the Trust Fund? It is likely that you will not fund every project the community wants, only those that are environmentally sensitive. When will you get a figure?

Chester: There is no set amount. More work needs to be done to determine it. Stakeholders must participate in this. We need to have criteria for qualifying for Trust Fund monies.

Q: What is the timeframe for establishing the Trust Funds?

Chester: There is no timeframe as yet. The lower Saginaw River and Saginaw Bay will be more of a challenge.

C: The Framework outline is vague and general. "Communication" is open to interpretation. There has to be two-way communication. I hope there is a priority in getting the agreement down to the fine print. Then the public can see what it means.

Q: I understand that studies have started on the upstream Saginaw River and the Tittabawassee River. Why are there no studies being done on the lower Saginaw River and Bay to establish a baseline?

Sygo: There is some data collection underway on the lower Saginaw River by the Army Corps of Engineers to assess navigation channel dredging needs. Some limited information is available. A grant was received from the U.S. EPA Great Lakes National Program Office in October. We are looking at the DEQ's data needs as part of the Operating License. [DEQ staff response: More than 50 samples have been taken from the Saginaw River and Bay.] These are preliminary in nature. It is important to start looking at dioxin levels. We had no information outside the navigation channel, but have seen some surprising data near the turning basin. We have taken samples from the old river channel in Saginaw Bay to see if it is a deposition zone. Under the Framework, Dow will be submitting a work plan for the upper Saginaw River. This will help to determine next steps and what other data is required.

Q: Were any other agreements signed between the State and Dow in the closed-door meetings?

Chester: No.

Q: When the State creates a permit, usually there is a public comment period. Why was there no opportunity for public comment on the Framework to reflect community concerns?

Chester: You are right - for permits it is common. It is not common practice to have input on consent orders. The document did not lend itself to public comment as it is an outline with gray areas. The Framework doesn't address significant decisions yet to be made. The document was never intended to "dot all the i's and cross all the t's."

C: The DEQ Community Advisory Panel (CAP) was a process in place that was working. Cleanups were occurring. It was stopped because legislators threatened the hazardous waste program. Science will not push the process. It will be political. We are an end-of-pipe community. This is being driven by our neighbors to the west.

Chester: Input on the CAP has been received at other meetings and the CAP should continue with adjustments, for example, by retaining a facilitator and having broader representation. This discussion supplements the CAP process. We need to take the focus group comments back, look at the tools to use and do further thinking. A tiered approach has been suggested, i.e., CAP plus outreach to participating groups.

Suggestions:

P = Invited Panelist

O = Public Observer

Facilitator: What are your specific suggestions regarding community involvement? For example, what other groups should be at the table? What other forums or venues could be used for outreach? Should there be "translated" information for the general public?

P: There should be involvement by other local units of government (townships, cities, and counties) and educational institutions. City council meetings could be used as venues.

Facilitator: Are there other potential participants?

P: Chambers of Commerce and union halls should be approached to involve business and working people.

P: The utilities responsible for drinking and waste water should be involved. Wastewater bill stuffers could be used.

Chester: Could local governments facilitate meetings with such groups?

P: Is this to be one-way communication? I need to know if I will have opportunities for two-way communication, and whether I will have meaningful input towards the outcome.

P: Other groups that should be involved are those who use the outdoors such as the Save Our Shoreline, camper Samaritan groups, and State Park visitors.

Facilitator: Would town hall meetings be an appropriate venue?

P: They would be appropriate only if there is an opportunity for meaningful input.

P: A number of communities operate public television. Public forums could take place on television.

Facilitator: Should the studies discussed tonight be presented at town hall meetings and public forums?

P: Doing so would provide clarity and transparency.

P: It would be helpful if there were links to information on community websites, for example, local health departments.

P: I would like to have a synopsis of the Dow Operating License.

Chester: We have heard from others that we should simplify such a technical document.

P: There is a need to involve doctors and nurses so that they can have dialogues with their patients. They could use written materials to share with their patients.

P: The DEQ CAP was a good model. It was inclusive. It had a wide range of stakeholders. It was truly participatory. Agendas were developed in advance. Members could question the DEQ and keep abreast of studies. Unfortunately, there was not always full participation by stakeholders, and Dow sometimes did not respond.

Facilitator: The CAP could be used as a conduit to disseminate information to other members of the public.

P: The CAP also participates in this process. Decision-makers need to be there. Do not turn anybody away.

Facilitator: Are there specific events that might be held?

P: There are tremendous opportunities at which to have useful information, for example, River Roar and Pig Gig.

P: We need to provide better information to visitors to the National Wildlife Refuge. We can provide to visitors information there. We have events at the Greenpoint Learning Center - through that we can link to the schools.

Facilitator: Director Chester brought up that we do not have the Department of Natural Resources Bay City State Park representatives with us tonight, and they should be here.

Facilitator: What is the role of signs in communications?

P: It is hit or miss. They can be critical (e.g., at the Refuge), especially for visitors from other areas who do not access the local press. Signs are not permanent, they can be vandalized – they have a lifespan of about five years. I do not know what other means to use, but signs can be high maintenance.

Sygo: Included in the Communications Interim Response Activities is the requirement to develop information by an independent third party. Dow has also established an escrow account to buy signs to be placed in parks and along shorelines that, for example, provide warnings about soil contamination and about eating fish. The signs have been ordered and should be posted within 30 days.

Facilitator: Pulses of information are often missed. Are there other longer-term methods of communication to engage people?

P: Work could be undertaken with the Great Lakes Commission, perhaps through participating at its upcoming conferences in Quebec and Chicago.

P: There should be a single, clear point-of-contact. Information (monthly/quarterly) should be sent to people who have attended meetings and to a mailing list. However, they need to know who to contact and to have an opportunity to establish a trust relationship with that person. This would ensure a coordinated message.

Chester: My preference for a contact person is Jim Sygo.

P: In an ideal world, the State would be an information source to the same extent as Dow; but it does not have the resources to provide community updates. The State should represent its citizens. An individual or team should be designated to produce information on a regular basis. People are getting mixed messages. People do not understand the 90 ppt vs. 1,000 ppt levels; whether they are safe or unsafe; where the Framework is leading; next steps; timing; and who is implementing all this.

P: Templates for public service announcements would be helpful. There should also be training for health professionals and public health officials.

P: Do the decking projects referenced in the list of interim response actions undermine the community's other decking project funded by the Cool Cities Grant?

Chester: No.

Carrington: Bank stabilization on the Tittabawassee River began in 2003 as part of the Operating License. The decking project is part of that and is separate from Cool Cities.

P: Many people receive their information through the press and electronic media. DEQ field staff should be permitted to comment to the media. They know the situation better than those in the State Capitol. They should be used to get the State's message out.

Chester: Can one global CAP represent all of the diverse interests?

P: There are different concerns. Some areas are being addressed now. The Lower Saginaw River and Bay will be addressed later as they need more study. They have to be addressed separately. They cannot all be lumped into one process.

Facilitator: Should there be two or three groupings?

P: There should be three: the Tittabawassee River, the Upper Saginaw River, and the Lower Saginaw River and Saginaw Bay.

P: Where are the highest levels of dioxin?

Sygo: They are between the confluence of the Tittabawassee and Saginaw Rivers.

P: I heard that there are high levels at the State Park.

Sygo: Your comment gives the impression that you thought the contamination has not made it down to the Bay yet. It has. However, there is less data for the Bay or outside the navigation channel in the hips of the channel than anywhere else. The navigation channel may have contamination from sloughing. To date, 16,000 ppt is the highest level detected.

P: With regard to the process of communication, it would be helpful to have a steering committee to give out information. There should not be three independent groups giving out conflicting information.

Chester: That is a good comment. It would bring consistency to the message.

P: There are three distinct areas, but maybe an executive group could provide coordination. I would recommend three groups because, although the activities are different, the desired outcomes are the same.

P: With regard to informing and involving the public, if tapes of meetings were produced, television stations could air them several times or they could be made available to watch at home. So much misinformation and ambiguity needs to be addressed.

P: There should be three entities. With regard to distributing information to the general public, there is a need to educate the public first before there can be feedback. Monthly or quarterly updates could be provided to area newspapers. Bulletins could be sent to yacht clubs and marinas. If input is being sought, surveys could be mailed out to get the information desired.

P: There has not been a discussion of conservation groups. Information could be placed in park kiosks along the rivers. Similar information should be at boat launches because fishermen consume fish.

P: There are four areas: the Tittabawassee River, the Upper Saginaw River, the Lower Saginaw River and Saginaw Bay, and Midland. However, there should be one group (even though it may be more cumbersome), as ecology in this large watershed does not know county boundaries. Everything must be cleaned up. That is not to say that everyone has to be at every meeting. The DEQ CAP received agendas for its meetings so members could determine if they had an interest in particular issues. Those who want to attend every meeting should be allowed to do so. A larger group would require a strong facilitator.

P: I would agree with a larger CAP, and would agree with a smaller group for each region. It should be a multi-tiered approach.

Chester: We have heard that we need to keep the public informed and that we need to make technical information understandable. I like the idea of using television to get information out. What are your suggestions for simplifying the information on these highly complex issues and making it understandable?

P: There should be clear position statements by the DEQ. The public will believe what the Department tells them. Statements should include the Department's position on the Dow Operating License and the health risks of dioxin. The information could be presented in bullet form.

Facilitator: Would a Q (question) and A (answer) format be useful?

P: The Department knows what the questions are.

P: Newspaper articles could have a space that readers could use to submit their questions for the next update.

Chester: Would it be useful to invite scientists to meetings, for example, Drs. Birnbaum and Garabrant?

P: That is an excellent suggestion.

Carrington: Would a panel of scientists be helpful?

P: Yes.

P: Have the meetings been well attended?

Chester: We sense that there is a thirst for information. We need to provide information.

P: There is a need to state concisely how the dioxin issue affects the general public (i.e., Do you fish? Do you swim? Do you go to the beach?).

P: If you are thinking of holding town hall meetings, there should be announcements in the newspapers to start people thinking of questions before attending. People could also be drawn in by announcing who will be on the panel.

P: There is a need for an overview of scientific information that public health officials can distribute (e.g., to health professionals).

P: If we could see the questions which were posed before and their answers, we could develop additional Qs and As. Qs and As could be presented in flyers, on television and in the newspapers so that those attending the town hall meetings could come prepared.

P: You do not have to go far a field to retain panelists. For example, State government toxicologists could serve as panelists to answer questions. People are starving for good information.

Facilitator: Information should be provided to the public prior to holding a large, open meeting.

P: In order to communicate, sometimes you must go to the audience, for example, realtors, home builders, and churches.

Facilitator: Such presentations should be concise, perhaps 15 minutes.

P: Concise handouts should be available at such presentations, and information provided on computer links to get more information.

Chester: To summarize: there should be a tiered-approach; people are busy and need concise information; and they need to know where to go for additional information.

P: The meeting in Saginaw was open to public observers for comments.

Facilitator: We will now open the meeting for questions or comments by observers.

O: All three communities should be included together in a common cause. The County Extension Service, Delta College, and Saginaw Valley Community College could be

used to assist the process. If you could engage 10 to 15 volunteers from each of the three cities and educate them, they could attend meetings, share information, and make small presentations to other stakeholders.

O: I am concerned about the drinking water. How long will it be before the dioxin is not there?

Sygo: There has been testing, but there is no evidence as yet. We expect that it is widely distributed in the Bay. There is a question as to whether it affects drinking water. The Bay City water testing for dioxin was nondetectable. The water filtration plants have not found any evidence of a problem, but the situation warrants continued monitoring.

O: I want to address the health issue in the final agreement. There cannot be a final agreement without health information. Dioxin is a carcinogen, so the exposure problem needs to be taken care of now.

Chester: We cannot wait till we have perfect knowledge. We have to develop an action plan based on the information we have at the time.

O: I do not want to see the same responses as were made at St. Louis or Alma. How were the sites selected for the four meetings and who paid for them?

Chester: The structure of the meetings was my idea. We did not know all the stakeholders, but we called together those whom we knew in order to pick their brains.

Staff response: Both Dow and the State were responsible for site selection.

Chester: Dow is covering the costs of the meetings.

O: With regard to paragraph 3 on page 9 of the Framework for an Agreement, Dow cannot be blamed for 100 years of industrial activity. This could bankrupt Dow. Do not make it difficult for businesses to come to this area. There is a need to balance jobs and the environment.

O: The Framework limits Dow's liability. Dow is proud of its stewardship. People are in denial. We have to recognize the problems and develop plans to move forward.

O: There should be outreach to the medical-health community. Perhaps public health officials (local health departments) could provide outreach services to dentists and physicians.

O: It would be great for the three communities to come together. There is enough common ground.

Facilitator: Thank you. We have received quality information tonight.

Compiled from notes taken by Jane Allen (Dow Contractor), Terri Johnson (Dow), Terry Walkington (DEQ), and Cheryl Howe (DEQ).